

This listing of claims replaces all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

Claims 1-23 (canceled)

1 Claim 24. (original) A method of providing real time traffic weighted
2 routes using a navigation system having a route calculation program that uses a map
3 database that includes road segment records that represent portions of roads in a road
4 network in a geographic region, comprising the steps of:
5 receiving a wireless transmission indicating weightings applicable to roads in said
6 road network;
7 calculating a solution route between a first location in said geographic region and
8 a second location in said geographic region, wherein said solution route comprises a list
9 of road segment records that was obtained by forming at least one search tree formed of a
10 plurality of gates, wherein each gate represents a physical location on said road network
11 and an accessible direction relative to said physical location;
12 identifying to which of said road segments said weightings apply;
13 incrementing each of said gates in said at least one search tree that corresponds to
14 a road segment to which one of said weightings applies;
15 growing a search tree by expanding gates to form successor gates; and
16 evaluating which of said successor gates to select for further expansion using said
17 weighted gates.

Claims 25-30 (canceled)

1 Claim 31. (previously presented) The method of Claim 24 wherein
2 each gate identifies an associated road segment by referring to a segment database ID.
3

1 Claim 32. (previously presented) The method of Claim 24 wherein
2 each gate identifies an associated road segment with a pointer.

1 Claim 33. (previously presented) The method of Claim 24 wherein, in
2 each gate, the accessible direction is reverse from a direction of vehicle travel.
3

1 Claim 34. (previously presented) The method of Claim 24 wherein
2 each gate also includes a reference to a predecessor gate.
3

1 Claim 35. (previously presented) The method of Claim 24 further
2 comprising:
3 after calculating the solution route from the first location to the second location,
4 augmenting an inbound search tree by adding thereto that portion of the at least one
5 search tree that formed part of the solution route.
6

1 Claim 36. (previously presented) The method of Claim 35 further
2 comprising:
3 maintaining in a memory of the navigation system the inbound search tree as
4 augmented with that portion of the at least one search tree that formed part of the solution
5 route.
6

1 Claim 37. (previously presented) The method of Claim 24 further
2 comprising:
3 providing a user of the navigation system with guidance for following the solution
4 route to the second location from a physical location of the navigation system.
5

1 Claim 38. (previously presented) The method of Claim 24 further
2 comprising:
3 prompting a user of the navigation system to indicate whether a new route should
4 be calculated upon detection that the navigation system departed from the solution route.
5

1 Claim 39. (previously presented) The method of Claim 24 wherein the
2 weighting indicates traffic conditions.
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1 Claim 40. (previously presented) The method of Claim 24 wherein the
2 weightings are provided to the navigation system from a traffic monitoring service.

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 Claims 41-44 (canceled)